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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,569	11/09/2000	Makiko Endo	35.C14920	2291

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NEW YORK, NY 10112

EXAMINER

SCHWARTZ, PAMELA R

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/708,569

Applicant(s)

ENDO ET AL.

Examiner

Pamela R. Schwartz

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23,24,29-32 and 53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23,24,29-32 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Finality of the last office action is withdrawn so that the subject matter of claim 27, which has been incorporated into claim 23, may be rejected over Zaima et al.

2. Claims 23, 24, 29-32 and 53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of U.S. Patent No. 6,460,989. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent, directed to an ink set, recite the inclusion of coloring material and fine particles which adsorb the coloring material in a monomolecular state. See claims 1, 3, 4, and 10-12. Since the ink set would be used to make the instantly claimed invention, and the particulars of how to make the claimed imaged article are recited by the patent claims, instantly claimed invention is obvious therefrom. Claim 23 were previously excluded from the obviousness double patenting claims but are now included as either inherent results of the disclosed process or in the case of claim 23, an obvious optimization thereof to obtain and known and desired result of color saturation. It is well known in the art to use combinations of anionic colorants with cationically charged receiving particles as recited by new claim 53.

3. Claims 23, 24, 29-32 and 53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,659,601. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patented recording method discloses an ink and a liquid composition, the liquid composition containing fine particles, wherein the coloring material is adsorbed on the surfaces of the fine particles in a

Art Unit: 1774

monomolecular state such that the particles aggregate to each other and with the surfaces of the particles being charges with a polarity opposite to that of the ink. See claims 1, 12 and 16. Since the recording method would be used to make the instantly claimed invention, and the particulars of how to make the claimed imaged article are recited by the patent claims, instantly claimed invention is obvious therefrom.

4. Claims 23, 24, 29-32 and 53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-40 of U.S. Patent No. 6,517,199. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent discloses a liquid composition for forming a colored area of an image on a medium by application of charged ink containing a coloring material wherein the aqueous ink composition contains fine particles that adsorb the coloring material of the ink a monomolecular state. See claims 2, 6, and 8. Since the aqueous liquid composition would be used to make the instantly claimed invention, and the particulars of how to make the claimed imaged article are recited by the patent claims, instantly claimed invention is obvious therefrom.

5. Claims 23, 24, 29-32 and 53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-37 of U.S. Patent No. 6,719,420. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims disclose a liquid composition for forming a colored portion of an image on a medium by application of charged particles and an oppositely charged colorant wherein the particles adsorb the colorant in what is inherently a monomolecular state (due to the method of formation)

Art Unit: 1774

along with an ink set and method of use. Since the aqueous liquid composition would be used to make the instantly claimed invention, and the particulars of how to make the claimed imaged article are recited by the patent claims, instantly claimed invention is obvious therefrom.

6. Claims 23, 24, 29-32 and 53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,729,718. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims disclose a recording method for forming the instantly claimed imaged medium including the particulars of how to make the claimed imaged article, the instantly claimed invention is obvious therefrom.

7. Claims 23, 24, 29-32 and 53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-39 of U.S. Patent No. 6,821,328. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims disclose a liquid composition for forming a colored portion of an image on a medium by application of charged particles and an oppositely charged colorant wherein the particles adsorb the colorant in what is inherently a monomolecular state (due to the method of formation) along with an ink set and method of use. Since the aqueous liquid composition would be used to make the instantly claimed invention, and the particulars of how to make the claimed imaged article are recited by the patent claims, the instantly claimed invention is obvious therefrom.

Art Unit: 1774

8. Claims 23, 24, 29-32 and 53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 6,746,114. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims disclose an ink set for forming a colored portion of an image on a medium by application of charged particles and an oppositely charged colorant wherein the particles adsorb the colorant in what is inherently a monomolecular state (due to the method of formation) along with a method of use. Since the ink set would be used to make the instantly claimed invention, and the particulars of how to make the claimed imaged article are recited by the patent claims, the instantly claimed invention is obvious therefrom.

9. Claims 23, 24, 29-32 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaima et al. (6,527,843) for reasons of record and for reasons given below. Zaima et al. (6,527,843) disclose fine colored particles for use in ink jet ink. The colored particles may be formed by adsorbing dye on the surface of oppositely charged metal oxide particles. See col. 4, lines 49-55 for the limitation of claim 53. This may be accomplished by incorporating the dye into a dispersion of the metal oxide. One or more dyes may be used. The size of the particles is 1 to 500 nm (col. 4, lines 28-34). See col. 4, lines 50 to col. 5, line 27, col. 5, lines 58-62, and col. 6, lines 4-6. The particles are dispersed in solvent to produce an ink jet ink and are applied by an ink jet recording method to a substrate which may be regular paper (see col. 9, lines 40-67). The reference briefly mentions properties of saturation (col. 4, lines 40-42) and zeta-potential, but does not disclose values. Based upon the recognition of these properties

Art Unit: 1774

in the art, it would have been obvious to one of ordinary skill in the art to optimize these properties in order to obtain desired printing results.

With respect to the limitation of claim 27 that has now been incorporated into claim 3, upon reconsideration, this limitation is considered to be a natural consequence of the process of Zaima et al. In Zaima et al., the colorant is adsorbed onto the surfaces of the particles. While the interior of the image will have a mixture of fine particles and coloring material, the very exterior of any image formed will naturally be formed primarily by the coloring material covered exterior surfaces of the particles. Therefore, the ratio of coloring material to fine particles will be larger in the peripheral portion of the image.

10. Applicant's arguments filed September 26, 2005 have been fully considered but they are not persuasive. Finality of the last office action has been withdrawn so that applicants have the opportunity to respond to the modified grounds of rejection.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

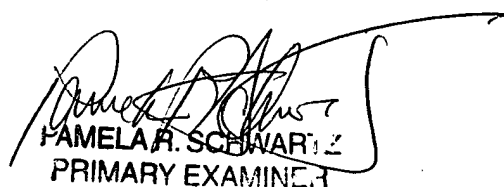
Art Unit: 1774

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz

October 7, 2005



PAMELA R. SCHWARTZ
PRIMARY EXAMINER